

FY 06 Update to the National Centers for Coastal Ocean Science National Marine Sanctuaries Research Plan

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Office of National Marine Sanctuaries–National Centers for Coastal Ocean Science
Long-term Agreement (ONMS–NCCOS LTA)

FY 06 & 07 Request for Proposals

The internal request for NCCOS scientists to conduct research under the ONMS–NCCOS LTA was opened on 28 July 2005. The funding level from ONMS for this Request For Proposals (RFP) remained at \$800K per annum, subject to availability of funds. Four projects, totaling \$219K were deferred due to lack of funds and had first priority for funding in FY06. Of the four prior commitments, shown at the bottom of Table I (see below), two were withdrawn, one was rolled into a larger proposal for all sanctuary sites, and one was resubmitted with increased funds requested.

The eleven submitted proposals were reviewed and ranked by the corresponding National Marine Sanctuaries Research Coordinators based on the science and management needs of that site. The ONMS and NCCOS Program Managers received these results and conducted individual reviews before submitting recommendations to the ONMS and NCCOS Office Director's on 12 October 2005.

The total request for the eleven proposals submitted for this funding cycle was \$1.13M in FY 06 and \$1.13M in FY 07 (Table I). All eleven projects have a significant characterization element, with four being more specifically focused on biogeographic assessments. Six focus on aspects of the effects of refugia on protecting resources. Three address special topics identified as research needs by individual sanctuary sites. One will result in oceanographic characterizations for all sanctuaries, an effort that will contribute substantively to the larger goal of completing and upgrading characterizations for each site.

The Program Managers recommended an allocation of \$800K for each of the two years and asked that the ONMS and NCCOS Office Directors consider some program growth for this agreement. The work being conducted meets the needs of more and more sanctuaries each year, and non-ONMS funds are playing an increasing role in supporting the work. In recent years, the ONMS has received an approximate 4:1 return on its \$800K investment in the agreement.

TABLE I: Proposals Submitted in Response to FY06 & FY07 ONMS–NCCOS LTA RFP

| PIs | NMS | Title | Status | Request FY06 | Request FY07 |
|--|------|---|------------------------------------|---------------|---------------|
| Caldow/Monaco/Hickerson | FGB | Biogeographic characterization of fish communities within the Flower Garden Banks National Marine Sanctuary | New | 160 | 160 |
| Clark/Bowlby | OC | Biological and environmental characterization and biogeographic assessment of the Olympic Coast National Marine Sanctuary and surrounding areas to support the management plan review process | New | 75 | 150 |
| Fonseca | FK | Comparative analysis of the function of disturbed and undisturbed coral reef and non-coral ecosystems in the Tortugas: Measuring the refugia effect of establishing a reserve | New | 0 | 46.4 |
| Friedlander | NWHI | A biogeographic assessment of the Northwestern Hawaiian Islands | New | 200 | 200 |
| Hartwell | MB | Benthic infaunal biogeography and sediment chemistry of the Monterey Bay National Marine Sanctuary: An integrated assessment of shelf, slope and canyon habitats | New | 100 | 100 |
| Hyland | MB | A study of the change in seafloor habitats and associated benthic fauna at Monterey Bay National Marine Sanctuary (MBNMS) following the cessation of bottom trawling | New | 130 | 130 |
| Kendall/McFall | GR | Spatial distribution and impacts of recreational fishing at Gray’s Reef National Marine Sanctuary: Addressing a critical information gap for sanctuary management | New | 51.5 | 44.5 |
| Kenworthy | FK | Characterization of benthic habitats and associated fishery communities in the FKNMS for biodiversity conservation and potential designation of SPAs | New | 73 | 58 |
| Kracker | GR | Applying underwater acoustic technologies for assessing spawning aggregations of pelagic and reef-related fishes at Gray’s Reef NMS | New | 33 | 0 |
| Piniak/Viehman | FK | Wave stress and physical oceanography at coral vessel grounding injury sites | New | 114 | 42 |
| Stumpf | All | Oceanographic characterization and monitoring of National Marine Sanctuaries | New | 200 | 200 |
| | | | TOTAL | 1136.5 | 1130.9 |
| Status of Recommended FY03-FY05 Proposals deferred for priority funding under the current RFP | | | | | |
| Clark/Monaco | OC | Biogeographic assessment | Resubmitted for addl’ funding | | |
| Monaco | FB | Biogeographic assessment | Withdrawn | | |
| Stumpf | FGB | Temperature, chlorophyll, and light | Rolled into proposal for all sites | | |
| Woodley | FK | Irgarol effects on coral reef health | Withdrawn | | |

Due to significant cuts to the National Marine Sanctuaries Program, funding was not available from ONMS to support FY 06 LTA projects. Program Managers conducted a revised ranking of proposals based on the following priorities: 1) building on past research; 2) parity among NCCOS offices and ONMS regions; and, 3) leveraging of funds. On February 10, 2006, the decision was made to obligate \$350K of NCCOS funds to support four proposals (Table II). This news was delivered to ONMS Research Coordinators during ONMS–NCCOS sessions of the 2006 Retreat in Kauai (see report – National Marine Sanctuary Program Research Coordinators Meeting 2006 <http://www.sanctuaries.noaa.gov/library/alldocs.html>).

| TABLE II: NCCOS-Funded LTA Proposals for FY06 | | | | | |
|---|-----|--|--------------|---------------|---------------|
| PIs | NMS | Title | FY 06 Funded | Request FY 06 | Request FY 07 |
| Caldow/Monaco/Hickerson | FGB | Biogeographic characterization of fish communities within the Flower Garden Banks National Marine Sanctuary | 140 | 160 | 160 |
| Hyland | MB | A study of the change in seafloor habitats and associated benthic fauna at Monterey Bay National Marine Sanctuary (MBNMS) following the cessation of bottom trawling | 100 | 130 | 130 |
| Kenworthy | FK | Characterization of benthic habitats and associated fishery communities in the FKNMS for biodiversity conservation and potential designation of SPAs | 60 | 73 | 58 |
| Stumpf | FGB | Oceanographic characterization and monitoring of National Marine Sanctuaries | 50 | 200 | 200 |
| | | TOTAL | 350 | 563 | 548 |

The NCCOS Program Manager informed the PIs of their funding level along with the following additional responsibilities.

1. PIs will act as representatives for all NCCOS to the sanctuary sites where they will be working and assist the Program Coordinator in linking NCCOS scientists with site needs where possible
2. Submission of project results as a document for publication in the Marine Sanctuaries Conservation Series
3. An annual report (template will be provided)
4. A one-page end-to-end summary (template will be provided)

Summary of Joint ONMS–NCCOS Sessions:
Approved Changes to the Long-term Agreement

The report *Findings Regarding the ONMS-NCCOS Long-term Agreement (LTA): NCCOS Center Directors' Retreat* provides a summary and action plan from the August 23-24, 2005 meeting in Monterey, California. Leadership from the Office of National Marine Sanctuaries and National Centers for Coastal Ocean Science met in joint sessions with headquarters staff and representatives from all five Centers. The objectives of the sessions were to:

- Fine-tune the existing ONMS–NCCOS partnership agreement
- Better define for NCCOS, ONMS science requirements to support site management plans, regional networks, and national program mandates
- Review FY06 priority requirements as basis for the annual scope of work
- Initiate the process to cross-walk collaboration opportunities for FY08-12
- Identify long-term challenges

Several significant modifications and additions to the Long-term Agreement were made and included the following.

- ONMS is implementing the addition of a regionalized structure that will support NOAA's Ecosystem Approach to Management (EAM). The four regions are:
 1. Northeast, Mid-Atlantic, and Great Lakes
 2. Southeast, Gulf of Mexico, and Caribbean
 3. West Coast (including Alaska)
 4. Pacific IslandsRegional entities will serve as a central point of contact to coordinate with other federal agencies and NOAA programs that already operate at a regional level.
- NCCOS liaisons will be discontinued and replaced by three components:
 1. LTA-funded PIs will play a greater role as experts for ONMS staff and advisory councils.
 2. The liaison site reports will be revised and incorporated into annual reporting by the Program Coordinator beginning in 2006.
 3. The Program Coordinator will sustain communication and tap into the background knowledge of former liaisons and PIs as needed to keep the NCCOS science focused on meeting ONMS research needs, conducting anticipatory science or technology development that will benefit the National Marine Sanctuary Program, and to provide technical assistance to sanctuary managers on an as-needed basis in order to most effectively implement findings and address unforeseen issues.
- New documents will be produced to facilitate rapid communication of ONMS management issues/needs
 1. NCCOS closed-loop one-pagers derived from LTA-funded research will cycle through management issue to research to consequence. LTA-funded

- PIs will be provided with a template by the Program Coordinator to be completed and returned for compilation into documents for multiple uses by ONMS headquarters, sanctuary site staff, and NCCOS management.
2. Sanctuary Research Coordinators will produce a single-page research prospectus. These will be disseminated to NCCOS scientists as target areas for proposal preparation.
 3. ONMS Program Manager will produce a set of Ecosystem Approach to Management issue one-pagers for each sanctuary.
 4. NCCOS will co-author SWiM documents with ONMS.
- Peer review framework will be developed for LTA-funded research by the Program Managers. PIs will be asked to provide copies of research products as this process is initiated.
 - Program Managers will address ONMS–NCCOS funding needs by:
 1. Petitioning for funding early in the fiscal year to facilitate project continuity.
 2. Articulating how proposed research will address specific management priorities and performance measures to better affect the PPBES/PART/PBA process.
 3. Define the PPBES link in the LTA RFP to facilitate reporting later in the process.
 - Human dimensions and economic drivers will be incorporated, where appropriate, in NCCOS research by LTA-funded PIs in consultation with Dave Loomis and Marybeth Bauer and in response to identified ONMS management issues.

Action in these focus areas will commence as lead staff are designated by headquarters and teams are formed.

- A joint technology team will address ship/small boat needs, funding requirements, science capabilities, sensor technologies, unmanned aerial vehicles (UAVs), autonomous underwater vehicles (AUVs), avoidance of duplication of equipment purchases, and better integration and assistance in development of the ONMS fleet.
- A joint ONMS-NCCOS vessel target team will address how to best achieve success with sanctuary vessels by integrating the needs of NCCOS researchers with ONMS development funds. Current ONMS vessels should be incorporated into joint vessel allocation schedules.
- IT staff from ONMS and NCCOS will address data and information management needs, specifically, a data portal service to provide access to GIS layers wherever they exist, and better links to NCCOS biogeographic assessments through the Census of Marine Life.
- A team will develop a consensus on the defining characteristics, components, and terminology for a given ecosystem. Endpoint goals for ecosystems, based on this consensus and understandable for the greater public, will be identified.

- NCCOS leadership will identify the NCCOS lead to work with Bob Pavia, others from ONMS and their partners to form a project planning group for a West Coast Ecosystem Symposium.

NCCOS Projects Database (NPD):
2005 Projects in Support of ONMS Research Needs

Of the 301 projects entered into the NPD for 2005, 82 research projects were identified as providing some level of support to ONMS (see Table III and link below¹). Projects are organized into three categories of support. *LTA-funded* refers to projects specifically funded via the LTA-RFP process (FOP to NCCOS). *Associated* refers to projects directly associated with sanctuary need and site but funded through other sources. *Supported* refers to projects that indirectly or more broadly support sanctuary management needs. Project information may be incomplete and some projects may be missing from the NPD and as such not included in the table.

¹ <http://www8.nos.noaa.gov/nccos/publications.aspx>

TABLE III -- 2005 Projects funded by the ONMS–NCCOS LTA, projects directly associated with ONMS management needs, or indirectly supporting ONMS management needs -- All data were obtained from the NCCOS Project Data Base (NPD)

Blue = LTA-funded projects Green = Associated projects Yellow = Supporting projects

| NPD # | Project Title | Expected completion date | Ecosystem | PI | Incoming fund type | Incoming amount | Note |
|----------|--|--------------------------|--|------------------|--------------------|-----------------|-----------------------------|
| 02M00011 | Biogeographic Assessment of Channel Islands National Marine Sanctuary to Support Boundary Alternative Assessments | Ongoing | Channel Islands National Marine Sanctuary; NE Pacific Ocean | John Christensen | FOPs | \$80,000.00 | LTA-funded in 2004 @ \$160K |
| 03M00032 | Biogeographic Assessment of Stellwagen Bank National Marine Sanctuary | Ongoing | National Marine Sanctuaries; Stellwagen Bank National Marine Sanctuary | Tim Battista | FOPs | \$80,000.00 | LTA-funded in 2004 @ \$90K |
| 02F00007 | Characterization and Ecological Monitoring at Gray's Reef National Marine Sanctuary | 9/30/2005 | Gray's Reef National Marine Sanctuary; SE US Atlantic Ocean | Jonathan Hare | Appropriated; FOPs | \$151,806.00 | LTA-funded in 2004 @ \$100K |
| 02F00010 | Characterization of the Tortugas Ecological Reserve: Establishment of a Baseline and Measurement of the Effect of Establishment of a Reserve | 9/30/2007 | Florida Keys National Marine Sanctuary; Florida; Florida Keys Area; Dry Tortugas | Mark Fonseca | FOPs | \$34,424.00 | LTA-funded in 2004 @ \$95K |
| 02F00006 | Ecological Characterization of Seagrass-Porites Coral Banks in the Florida Keys National Marine Sanctuary | 2005 | Estuaries; Gulf of Mexico; Tampa Bay, FL; Coral Reefs; SE US Atlantic Ocean; Caribbean | Jud Kenworthy | Appropriated | \$70,000.00 | LTA-funded in 2004 @ \$75K |
| 02M00022 | Grays Reef National Marine Sanctuary Habitat Mapping and Fish Habitat Utilization Studies | 6/31/2006 | Gray's Reef National Marine Sanctuary | Matt Kendall | FOPs | \$160,000.00 | LTA-funded in 2004 @ \$20K |
| 04F00062 | Analysis of Sources of Primary Production Supporting the Apex Predator-dominated Ecosystem in the NWHINMS | 9/8/2006 | Hawaiian Archipelago; Northwest Hawaiian Islands | Carolyn Currin | FOPs; Appropriated | \$50,000.00 | LTA-funded in 2004 @ \$30K |
| 04E00056 | Evaluation of Critical Offshore Habitats and their Susceptibility to Fishing/Harvest Impacts at the Olympic Coast National Marine Sanctuary | Ongoing | National Marine Sanctuaries; Olympic Coast National Marine Sanctuary; Coral Reefs; Coastal Ocean | Jeffrey Hyland | Appropriated | \$175,202.00 | LTA-funded in 2004 @ \$90K |

| NPD # | Project Title | Expected completion date | Ecosystem | PI | Incoming fund type | Incoming amount | Note |
|--------------|--|---------------------------------|--|-------------------|---------------------------|------------------------|----------------------------|
| 02M00010 | Biogeographic Assessment of Central and Northern California National Marine Sanctuaries: Phase II | Ongoing | Cordell Bank National Marine Sanctuary; Gulf of the Farallones National Marine Sanctuary; Monterey Bay National Marine Sanctuary; NE Pacific Ocean | Tracy Gill | Appropriated | \$10,000.00 | LTA-funded in 2004 @ \$85K |
| 04M00067 | Monthly Mean Chlorophyll and SST from Satellite for Sanctuaries | | National Marine Sanctuaries; Cordell Bank National Marine Sanctuary; Gulf of the Farallones National Marine Sanctuary; Monterey Bay National Marine Sanctuary | Richard Stumpf | Appropriated | \$42,848.00 | LTA-funded in 2004 @ \$55K |
| 04E00065 | Assess Potential of Underwater Acoustic Technology to Estimate Biomass and Seasonal Variation in Pelagic Fish Abundance within Gray's Reef National Marine Sanctuary | Ongoing | Gray's Reef National Marine Sanctuary | Laura Kracker | Appropriated | \$87,947.00 | |
| 04E00055 | Assessment of Ecological Condition of Shelf Waters of the South Atlantic Bight (inclusive of GRNMS) | 12/31/2008 | Gray's Reef National Marine Sanctuary; SE US Atlantic Ocean | Jeffrey Hyland | Appropriated | \$116,801.00 | |
| 03E00052 | Assessment of Ecological Conditions in Shelf Waters along the US West Coast | 12/31/2007 | Channel Islands National Marine Sanctuary; Cordell Bank National Marine Sanctuary; Gulf of the Farallones National Marine Sanctuary; Monterey Bay National Marine Sanctuary; Olympic Coast National Marine Sanctuary; SE Pacific Ocean; NE Pacific Ocean | Jeffrey Hyland | Appropriated | \$116,801.00 | |
| 05F00066 | Assessment of the Charleston Gyre as Spawning and Nursery Habitat and as a Potential MPA in the Coastal Ocean | Ongoing | SE US Atlantic Ocean | John Govoni | Appropriated | \$33,185.00 | |
| 04M00060 | Benthic Habitat Mapping of Florida Coral Reef Ecosystems | 9/30/2005 | South Atlantic; Biscayne Bay; Florida Keys National Marine Sanctuary; Florida; SE US Atlantic Ocean | Mark Monaco | Appropriated | \$375,000.00 | |
| 02E00042 | Benthic Studies at the Gray's Reef National Marine Sanctuary and Nearby Shelf Waters | Ongoing | Gray's Reef National Marine Sanctuary | Jeffrey Hyland | Appropriated; FOPs | \$198,801.00 | |
| 04F00046 | Calibration of the Effect of Injury Size on Spatial Models Predicting the Recovery of Seagrasses from Vessel Injuries | Ongoing | South Atlantic; Gulf of Mexico; Florida Bay, FL; Tampa Bay, FL; Florida Keys National Marine Sanctuary | Jud Kenworthy | Appropriated | \$7,000.00 | |
| 04M00054 | Contaminant Characterization of Massachusetts Bay and Stellwagen National Marine Sanctuary | Ongoing | Boston Harbor, MA; Stellwagen Bank National Marine Sanctuary | Gunnar Lauenstein | | \$0.00 | |
| 05M00086 | Biogeographic Assessment of Olympic Coast National Marine Sanctuary | 9/30/2007 | Olympic Coast National Marine Sanctuary; NE Pacific Ocean; International | Randy Clark | Appropriated | \$400,000.00 | |

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|----------|---|--------------------------|--|------------------|--------------------|-----------------|------|
| 04F00047 | Calibration and Validation of a Spatial Coral Recovery Model for Application to Injuries in Coral Reefs | Ongoing | Coral Reefs; Florida; Commonwealth of Puerto Rico; St. Thomas; St. John; St. Croix; Flower Garden Banks National Marine Sanctuary; Navassa Island; American Samoa; Guam; Commonwealth of the Northern Mariana Islands; U.S. Pacific Remote Insular Reefs; Pacific Freely Associated States | Mark Fonseca | Appropriated | \$100,000.00 | |
| 04M00070 | Characterize Environmental Stressors in Central California National Marine Sanctuaries -- Contaminants, Benthic Communities, and Invasive Species in Monterey Bay National Marine Sanctuary | Ongoing | Monterey Bay National Marine Sanctuary; NE Pacific Ocean | Ian Hartwell | | \$0.00 | |
| 04S00134 | Coral population dynamics in fully protected zones in Keys | 5/31/2006 | Coral Reefs; Florida Keys Area | John Ogden | Appropriated | \$100,000.00 | |
| 04S00133 | Coral reef evaluation and monitoring project (CREMP) | Ongoing | Coral Reefs; Florida Keys Area | Carl Beaver | Appropriated | \$177,000.00 | |
| 04M00058 | Development of a Plan to Conduct Biogeographic Assessment of the Northwestern Hawaiian Islands | 9/30/2005 | Northwest Hawaiian Islands; Coral Reefs; Pearl; Hermes; Lisianski; Laysan; Maro; Gardner; French Frigate Shoals; Necker; Midway; Kure Atoll; Nihoa; Hawaiian Waters | Alan Friedlander | FOPs | \$0.00 | |
| 04F00048 | Development of a Statistically Appropriate Sub-sampling Protocol for Monitoring the Success of Seagrass Restorations in the Florida Keys National Marine Sanctuary | Summer 2006 | Florida Keys National Marine Sanctuary | Amy Uhrin | Appropriated | \$34,518.59 | |
| 02E00034 | Development of Aerial Early Warning System to Protect Right Whales from Ship Strikes | 2005 | SE US Atlantic Ocean | Wayne McFee | Other | \$4,000.00 | |
| 03M00041 | Development of Reef Fish Monitoring Protocols to Support National Park Service Inventory and Monitoring Program | 10/01/05 | Coral Reefs; Florida Keys Area; Dry Tortugas; St. Thomas; St. John; | Charles Menza | | \$0.00 | |
| 05M00089 | Dry Tortugas Caribbean Integrated Biogeographic Assessment | 12/31/2006 | Florida; Dry Tortugas; Commonwealth of Puerto Rico; Puerto Rico | Mark Monaco | Appropriated | \$690,000.00 | |
| 02M00021 | HAB Studies in Sanctuaries -- Develop Methods for Applying Satellite Imagery to the Study and Monitoring of HABs and other Algal Blooms in Sanctuaries | Ongoing | Dry Tortugas; St. Croix; Northwest Hawaiian Islands; Tutuila; Commonwealth of the Northern Mariana Islands | Richard Stumpf | Appropriated | \$13,299.00 | |

| NPD # | Project Title | Expected completion date | Ecosystem | PI | Incoming fund type | Incoming amount | Note |
|--------------|--|---------------------------------|--|------------------|---------------------------|------------------------|-------------|
| 02F00024 | Implementation of Restoration of Injured Seagrass Beds in the Florida Keys National Marine Sanctuary and other US Trust Waters | Ongoing | Florida Keys National Marine Sanctuary | Jud Kenworthy | Appropriated | \$7,000.00 | |
| 04S00124 | Long-term monitoring of seagrasses in the Florida Keys National Marine Sanctuary | 2/28/2006 | Florida Bay, FL; Florida Middle Grounds; Southeast coast of Florida; Everglades National Park; Florida Keys Area; Dry Tortugas; Florida Keys National Marine Sanctuary | James Fourqurean | Appropriated | \$0.00 | |
| 04S00132 | Monitoring and modeling approaches for coral communities | 2/20/2006 | Florida Keys National Marine Sanctuary | Diego Lirman | Appropriated | \$0.00 | |
| 04S00131 | Hard bottom dynamics in Florida Keys | 3/31/2006 | Coral Reefs; Florida; Florida Keys Area | Mark Butler | Appropriated | \$0.00 | |
| 04M00051 | Queen Conch Reproductive Impairment and Impact on the Species Management Plan | 12/31/2006 | National Marine Sanctuaries; Coastal Ocean; SE US Atlantic Ocean | Tony Pait | Reimbursable | \$0.00 | |
| 04S00128 | Real time currents and water quality monitoring in FKNMS | 2/28/2006 | Florida Keys National Marine Sanctuary | Elizabeth Johns | Appropriated | \$0.00 | |
| 04M00059 | Comparison of Reef Fish Habitat Utilization Patterns Within and Outside Hawaii Marine Protected Areas | 2007 | Coral Reefs; Hawaii; Kahoolawe; Kauai; Lanai; Main Hawaiian Islands; Maui; Molokai; Oahu | Alan Friedlander | Appropriated | \$10,000.00 | |
| 04S00121 | Long-term measurement of physical, chemical, and biological water column properties in the south Florida coastal ecosystem | 2/28/2005 | Florida Bay, FL | Peter Ortner | Appropriated | \$299,884.00 | |
| 03S00101 | Hypoxia, Fish, and Fisheries in the Northwestern Gulf of Mexico: An Ecosystem-Based Approach | 4/30/2006 | Gulf of Mexico | J. Kevin Craig | | \$0.00 | |
| 02F00002 | Assessment and Classification of Habitat Functions in Florida Bay to determine the Effects of Restoration Plans on Florida Bay's Fisheries | 4/30/2006 | Florida; SE US Atlantic Ocean; South Atlantic | Larry Settle | Appropriated | \$119,374.00 | |
| 04M00062 | Development of a Geographic Information System (GIS) as a Management Tool to Reduce Bycatch of Sea Turtles in U.S. Atlantic Ocean and Gulf of Mexico Fisheries | Ongoing | Estuaries; National Marine Sanctuaries; Florida Keys National Marine Sanctuary; Flower Garden Banks National Marine Sanctuary; Gray's Reef National Marine Sanctuary; Stellwagen Bank National Marine Sanctuary; Coastal Ocean; NE US Atlantic Ocean; Mid Atlantic Ocean; SE US Atlantic Ocean | Connie Moy | Appropriated | \$100,000.00 | |

| NPD # | Project Title | Expected completion date | Ecosystem | PI | Incoming fund type | Incoming amount | Note |
|--------------|--|---------------------------------|---|---------------------|---------------------------|------------------------|-------------|
| 02Q00001 | Development of an Early Warning System for Invasive Coastal Marine Species: Hawaii Pilot | Ongoing | Hawaiian Waters | Donna Turgeon | | \$0.00 | |
| 05f00067 | Model of Propagation of Invasive Finfish: Lionfish | Ongoing | SE Pacific Ocean; SE US Atlantic Ocean | John Govoni | Appropriated | \$69,612.00 | |
| 05S00160 | ECOFOR 2005: Theme Workshop on Regional Multidisciplinary Modeling in the Gulf of Maine | 12/31/2005 | NE US Atlantic Ocean; Stellwagen Bank National Marine Sanctuary | Jeffrey Runge | Appropriated | \$99,989.00 | |
| 05S00161 | ECOHAB 2004: Harmful Ulvoid Macroalgal Blooms in Washington State -- Distribution, Environmental Effects, and Toxin Production | 8/31/2007 | NE Pacific Ocean; Puget Sound | Kathy Van Alstyne | Appropriated | \$454,516.00 | |
| 05S00162 | ECOHAB 2004: Lyngbya HAB -- Ecology of Toxic Marine Cyanobacteria Lyngbya spp. In Florida Estuarine and Coastal Waters | 9/30/2007 | Florida Bay; Florida Keys National Marine Sanctuary; SE US Atlantic Ocean; Tampa Bay, FL | Hans Paerl | Appropriated | \$173,000.00 | |
| 02S00052 | ECOHAB: Nuisance Macroalgal Blooms in Coastal Maui: Assessment and Integration of Physical Factors and Biological Processes | 12/31/2006 | Hawaiian Archipelago; Hawaiian Waters; Main Hawaiian Islands | Celia Smith | Appropriated | \$295,527.00 | |
| 02S00036A | ECOHAB: Ecology and Oceanography of Toxic Pseudo-nitzschia in the Pacific Northwest Coastal Ocean (WW) | 8/1/2007 | NE Pacific Ocean | Barbara Hickey | Appropriated | \$553,086.00 | |
| 02S00036B | ECOHAB: Ecology and Oceanography of Toxic Pseudo-nitzschia in the Pacific Northwest Coastal Ocean (NWFSC) | 8/31/2007 | NE Pacific Ocean | Vera Trainer | Appropriated | \$308,815.00 | |
| 04S00142 | ECOHAB: Oceanographic Links to Alexandrium-Imposed Toxicity in the Gulf of Maine | 9/30/2007 | NE US Atlantic Ocean; Stellwagen Bank National Marine Sanctuary | Andrew Thomas | Appropriated | \$192,567.00 | |
| 02S00051 | ECOHAB: Predictive Models of the Toxic Dinoflagellate Alexandrium fundyense in the Gulf of Maine: Quantitative Evaluation, Refinement, and Transition to operational Mode for Coastal Management | 8/31/2006 | Penobscot Bay; Casco Bay, ME; Massachusetts Bay; Cape Cod Bay; Stellwagen Bank National Marine Sanctuary; NE US Atlantic Ocean | Dennis McGillicuddy | Appropriated | \$0.00 | |
| 02E00026 | Evaluation of Algicidal Bacteria and Their Potential for HAB Termination | 9/30/2008 | SE US Atlantic Ocean | Gregory Doucette | Appropriated | \$309,539.00 | |
| 02E00028 | Georgia Coastal Analysis Partnership (GCAP) | 9/30/2005 | South Atlantic; SE US Atlantic Ocean | Jeffrey Hyland | Appropriated | \$116,801.00 | |
| 02F00017 | Forecasting Hydrogeographic Controls of Trust Resource Ecology, Susceptibility, and Recovery | 9/30/2007 | Albemarle Sound; Dry Tortugas; Florida; Neuse River, NC; Pamlico Sound; Pamlico/Pungo Rivers, NC; SE US Atlantic Ocean; Tampa Bay, FL | Randolph Ferguson | Appropriated | \$114,995.00 | |

| NPD # | Project Title | Expected completion date | Ecosystem | PI | Incoming fund type | Incoming amount | Note |
|--------------|--|---------------------------------|---|-------------------|---------------------------|------------------------|-------------|
| 02M00024 | HAB Forecasting in Gulf of Mexico -- Develop Methods to use Satellite Imagery, Meteorological Data, and other Data Collected and Processed across NOAA for Monitoring and Forecasting of HABs | Ongoing | Gulf of Mexico; National Marine Sanctuaries; Florida Keys National Marine Sanctuary; Flower Garden Banks National Marine Sanctuary | Richard Stumpf | Appropriated | \$366,182.00 | |
| 02E00013 | Conduct Regional Assessments of Sediment Contamination | Ongoing | Chesapeake Bay; Charleston Harbor; Indian River; Biscayne Bay; Ace Basin Reserve (SC); Gray's Reef National Marine Sanctuary | Mike Fulton | FOPs; Reimbursable | \$463,128.00 | |
| 04S00135 | Data/document archeology and rescue for south Florida | 2/28/2006 | Florida Bay, FL; Florida Middle Grounds; Southeast coast of Florida; Everglades National Park; Florida Keys Area; Dry Tortugas | Adriana Cantillo | Appropriated | \$0.00 | |
| 04Q00010 | Measuring Impacts of Land-Based Pollution on Coral Ecosystems | Ongoing | Hawaiian Archipelago; American Samoa; Guam; Commonwealth of the Northern Mariana Islands; Pacific Freely Associated States | Ruth Kelty | | \$0.00 | |
| 04M00059 | Comparison of Reef Fish Habitat Utilization Patterns Within and Outside Hawaii Marine Protected Areas | 2007 | Coral Reefs; Main Hawaiian Islands; Kauai; Oahu; Hawaii; Maui; Kahoolawe; Molokai; Lanai | Alan Friedlander | Appropriated | \$10,000.00 | |
| 02M00019 | Mussel Watch: Long-Term Monitoring of Toxic Chemicals in U.S. Coastal Waters and Periodic Reporting of Temporal Trends in Environmental Conditions to Document Effectiveness of Pollution Abatement Strategies | Ongoing | Estuaries; National Estuarine Research Reserves; National Marine Sanctuaries; Coastal Ocean | Gunnar Lauenstein | | \$0.00 | |
| 03M00045 | National Coral Reef Ecosystem Monitoring Grant Program and Support to US Coral Reef Task Force | Ongoing | Hawaiian Archipelago; American Samoa; Guam; Commonwealth of the Northern Mariana Islands; Pacific Freely Associated States; U.S. Pacific Remote Insular Reefs; Pacific Freely Associated States | John Christensen | FOPs | \$800,000.00 | |
| 04S00113 | Hawaii Coral Reef Initiative Research Program: Phase 8 | 5/31/2006 | Main Hawaiian Islands; Northwest Hawaiian Islands | Michael Hamnett | Appropriated | \$1,441,485.00 | |
| 04S00112 | National Coral Reef Institute: Phase 8 | 7/31/2007 | Florida; Dry Tortugas; Commonwealth of Puerto Rico; Puerto Rico; U.S. Virgin Islands | Richard Dodge | Appropriated | \$961,019.00 | |
| 02E00041 | NOAA National Benthic Inventory | Ongoing | Estuaries; National Estuarine Research Reserves; National Marine Sanctuaries; Coral Reefs; Coastal Ocean | Jeffrey Hyland | Appropriated | \$116,801.00 | |

| NPD # | Project Title | Expected completion date | Ecosystem | PI | Incoming fund type | Incoming amount | Note |
|--------------|--|---------------------------------|---|----------------------|----------------------------|------------------------|-------------|
| 04S00141 | Integrating Coral Reef Ecosystem Integrity and Restoration Options with Watershed-based activities and MPA's in the Tropical Pacific Islands | 7/31/2005 | American Samoa; Commonwealth of the Northern Mariana Islands; Coral Reefs | Robert Richmond | Appropriated | \$0.00 | |
| 02S00037 | Olympic Region Harmful Algal Bloom (ORHAB) Project | 4/30/2005 | Olympic Coast National Marine Sanctuary; NE Pacific Ocean | Barbara Hickey | Appropriated | \$0.00 | |
| 04S00119 | MERHAB 2004: Monitoring Domoic Acid in Marine Food Webs and Water | 1/31/2007 | NE Pacific Coast; Olympic Coast National Marine Sanctuary | R. Wayne Litaker | FOP | \$95,000.00 | |
| 04S00130 | Regional model for south Florida coastal seas | 4/30/2006 | Florida Bay, FL | Vassiliki Kourafalou | Appropriated | \$0.00 | |
| 04M00053 | Resolving Factors Affecting Benthic Faunal Distribution | 9/30/2005 | Mid Atlantic; Gulf of Mexico; Pacific | Ian Hartwell | Appropriated | \$10,000.00 | |
| 04M00055 | The State of the Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2005 | 3/31/2005 | Fagatele Bay National Marine Sanctuary; Florida Keys National Marine Sanctuary; Flower Garden Banks National Marine Sanctuary; Hawaiian Islands Humpback Whale National Marine Sanctuary; Northwest Hawaiian Islands; Florida; Commonwealth of Puerto Rico; U.S. Virgin Islands; Flower Garden Banks National Marine Sanctuary; Navassa Island; Hawaiian Archipelago; American Samoa; Guam; Commonwealth of the Northern Mariana Islands; U.S. Pacific Remote Insular Reefs; Pacific Freely Associated States | Jeannette Waddell | Appropriated | \$400,000.00 | |
| 04S00122 | Seagrass derived dissolved organic matter in Florida Bay; Molecular biogeochemistry and microbial bioavailability | 2/28/2006 | Florida Bay, FL | Rudolf Jaffe | Appropriated | \$0.00 | |
| 04S00126 | Sources, transport, variability of water turbidity | 2/28/2006 | Florida Bay, FL; SE US Atlantic Ocean | Richard Stumpf | Appropriated | \$0.00 | |
| 05F00064 | Assessment of Mercury Bioaccumulation in Sentinel Fish from South Florida and its Relationship to Everglades Restoration | Ongoing | Biscayne Bay; Caloosahatchee River, FL; Charlotte Harbor, FL; Estuaries; Gulf of Mexico; Indian River; North Ten Thousand Islands; Rookery Bay; South Ten Thousand Islands | David Evans | Reimbursable; Appropriated | \$220,347.00 | |
| 04S00127 | CO2 and O2 air-water exchange in Florida Bay | 4/30/2006 | Florida Bay, FL | Wade McGillis | Appropriated | \$108,000.00 | |

| NPD # | Project Title | Expected completion date | Ecosystem | PI | Incoming fund type | Incoming amount | Note |
|--------------|---|---------------------------------|---|-----------------|---|------------------------|--|
| 03F00039 | Transfer of spatial recovery model to other U.S. trust resource areas in the Atlantic and U.S. territories in the Pacific | Ongoing | North Atlantic; Mid Atlantic; South Atlantic; Gulf of Mexico; Pacific; Alaska Estuaries; Florida Keys National Marine Sanctuary; Olympic Coast National Marine Sanctuary | Mark Fonseca | Appropriated | \$16,939.00 | |
| 04S00129 | Transport and exchange of Florida Bay interior waters | 4/30/2006 | Florida Bay, FL | Thomas Lee | Appropriated | \$0.00 | |
| 05Q00011 | Human Dimensions of Aquatic Invasive Species - Compendium of Invasive Aquatic Species in the Coastal and Great Lakes U.S. - Phase I | Ongoing | Estuaries; National Marine Sanctuaries; Coral Reefs; Coastal Ocean | | | \$0.00 | |
| 02S00089 | Phase IV Support for the Scientific Investigator's Synthesis Symposia | 2/28/2006 | Stellwagen Bank National Marine Sanctuary; NE US Atlantic Ocean | Peter Wiebe | Appropriated | \$0.00 | |
| 02S00088A | Patterns of Energy Flow and Utilization on Georges Bank (WHOI) | 12/31/2005 | Stellwagen Bank National Marine Sanctuary; NE US Atlantic Ocean | John Steele | Appropriated | \$0.00 | |
| 02S00088B | Patterns of Energy Flow and Utilization on Georges Bank (NMFS) | 12/31/2005 | Stellwagen Bank National Marine Sanctuary; NE US Atlantic Ocean | Michael Fogarty | Appropriated | \$0.00 | |
| 02S00087A | Zooplankton Population Dynamics on Georges Bank: Model and Data Synthesis (UMASS) | 4/30/2006 | Stellwagen Bank National Marine Sanctuary; NE US Atlantic Ocean | Changsheng Chen | Appropriated | \$0.00 | |
| 02S00087B | Zooplankton Population Dynamics on Georges Bank: Model and Data Synthesis (URI) | 4/30/2006 | Stellwagen Bank National Marine Sanctuary; NE US Atlantic Ocean | Edward Durbin | Appropriated | \$0.00 | |
| 02M00002 | Application and Evaluation of Biomarkers and Ecological Indices to Report on Adverse Biological Effects of Coastal Contamination | Ongoing | Estuaries; Commonwealth of Puerto Rico; National Marine Sanctuaries; Coral Reefs; National Estuarine Research Reserves; Commonwealth of Puerto Rico | Jawed Hameedi | Appropriated | \$30,000.00 | |
| | | | | | Total amounts as reported in the NPD | \$11,572,238.59 | |
| 03F00038 | Catalog the decisions and implementation actions made by coastal managers that affect National Marine Sanctuary health | Ongoing | Channel Islands National Marine Sanctuary; Cordell Bank National Marine Sanctuary; Florida Keys National Marine Sanctuary; Flower Garden Banks National Marine Sanctuary; Gray's Reef National Marine Sanctuary; Gulf of the Farallones National Marine Sanctuary; Monterey Bay National Marine Sanctuary; Olympic Coast National Marine Sanctuary; Stellwagen Bank National Marine Sanctuary; Northwest Hawaiian Islands | Mark Fonseca | Appropriated; Appropriated | \$6,365,518.00 | Support level calculated using separate metric |